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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,610	09/26/2000	Denny Jaeger	4143	4665

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EXAMINER

NGUYEN, HAU H

ART UNIT PAPER NUMBER

2676

DATE MAILED: 01/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/670,610

Applicant(s)

JAEGER ET AL.

Examiner

Hau H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/18/2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-93 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-17, 20-24, 27, 30-41, 45, 46, 57-59, 61-68, 72-87, 90 and 91 is/are rejected.
- 7) ☒ Claim(s) 10, 11, 18, 19, 25, 26, 28, 29, 42-44, 47-56, 60, 69-71, 88, 89, 92 and 93 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1-9, 12-17, 20-24, 27, 30-41, 45-46, 57-59, 61-68, 72, 84-87 and 90-91, are rejected under 35 U.S.C. 102(e) as being anticipated by Jaeger et al. (U.S. Patent No. 5,982,355).

Referring to claims 1-4, 84 as shown in Fig. 32 and 33, reference U.S. 5,982,355 (hereafter referred as '355) discloses a touch panel 202, and a control device 222 for producing a control signal that can be varied by an operator has a knob 223 that can be slid along a linear track 224 to vary the signal (col. 19, lines 31-33) and is secured to the face 202 of the display screen 203 within the image display area (col. 19, lines 39-41). Components of the control device 222 are proportioned to locate the track 224 between the infrared beam grid 215 and the face 202 of the display, to locate the knob 223 outward from the grid 215 and to cause the stem 227 to be

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in an intersecting relationship with the grid (col. 19, lines 52-57), and thus detecting the touch on the slider.

In regard to claims 5-7, 20, 30-32, 34-40, 85, and 90-91, reference '355 teaches that in control devices 222 of this kind the slidable knob or cap 223 is supported by a stem 227, which protrudes from the track 224 (stylus tip) through a linear groove 228 that extends along the track (col. 19, lines 49-52). Reference '355 further teaches the display screen 203 can then be used to display instantly changeable calibration marks 226 and/or other graphics, which facilitate operation of the control device (col. 19, lines 45-48). It is inherent that the changeable calibration marks 226 on the display should be driven by a control circuit or software means.

Referring to claim 8, as cited above, reference '355 teaches components of the control device 222 are proportioned to locate the track 224 between the infrared beam grid 215 and the face 202 of the display, to locate the knob 223 outward from the grid 215 (col. 19, lines 52-57), and thus displaying changeable calibration marks 226 the display screen 203 (col. 19, lines 45-48).

In regard to claims 9, 12-13, and 86, it is inherent that the linear track should be provided with a power supply to vary the control signal of the control device 222.

As for claim 14, as shown in Fig. 33 of reference '355, the fader cap 223 includes a pair of flanges on both sides.

Referring to claim 15, with reference again to Fig. 33, reference '355 depicts the fader cap 223 having a pair of flanges and the fader cap 223, which can slide freely as cited above, is secured to the base of the display 203.

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In regard to claim 16, as shown in Figs. 12 and 21, plurality of spaced feet projecting from the touch screen 66.

Referring to claim 17, as shown in Fig. 33 of reference '355, the linear track 224 is adhered to the base of the display 203.

In regard to claims 21-24, 27 and 87, '355 teaches a turnable knob to vary the control signal, having a shaft 133 of metal, plastic or the like which protrudes outward from the transparent cover plate 134 of a flat panel display 137 at a location within the image display area. A knob cap 154 is secured coaxially with the post and adapted for rotation about a common axis as shown in Figs. 22-24. Conductors 141, which acts as a stylus tip, extend along shaft 133 and along the undersurface of cover plate 134 to connect the cells 139a and 139b with a control signal processing circuit 142 which is shown in FIG. 25 and which can be situated within the marginal region of the flat panel display 137 (col. 13, lines 55-65). Thus, the signal processing circuit 142 and the flat panel display 137 together creates the touch screen.

Referring to claims 33 and 41, as shown in Fig. 29, reference '355 teaches a control device is a joystick, and flexing of the joystick 177 in any lateral direction by an operator is detected by a pair of Hall effect sensors 185a and 185b (col. 17, lines 46-48).

In regard to claims 45-46, as cited above, reference '355 teaches the touch screen device is adapted to detect different devices, and each device (fader cap or turnable knob) generates signal through stylus tips.

In regard to claims 57-58, Jaeger et al. (U.S. Patent No. 5,982,355) teach the joystick 177 is formed of flexible material such as rubber or the like and has a base end 182 which is bonded

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to the transparent cover plate 183 of the flat panel display 180 with adhesive or by other means as shown in Fig. 29 (col. 17, lines 28-31).

In regard to claims 59, 61-68, and 72, with reference to Figs. 29-31, '355 teaches the shape of the post is contoured in a mushroom configuration support by the stem 177, having a base 182 smaller than the distal end 186, or as shown in Figs. 30 and 31, the distal end is smaller than the base 188, which is snapped into the opening annular retainer 192, and extends towards the touch screen 183.

2. Claims 73-83 are rejected under 35 U.S.C. 102(e) as being anticipated by van Ketwisch (U.S. Patent No. 6,072,475)

Referring to claims 73-76, van Ketwisch teaches an input device to the touch screen in which an object can be detected by capacitive technology having a resilient insulating membrane 1002 the first set of conductive strips 1021-1024 and the second set of the conductive strips 1025-1028 will be in a perpendicular relationship to each other as shown in Fig. 1b. Leads 1031-1034 are connected to the conductive strips 1021-1024, respectively. Leads 1035-1038 are connected to the conductive strips 1025-1028, respectively. As shown in Fig. 8b, a separate decoder and/or driver unit 1551 is used. The connectors of the touch screen 1553 may correspond to the leads 1031-1038 of FIG. 1b when the touch screen has been formed to have an electrical arrangement similar to the electrical arrangement as has been described above in conjunction with FIG. 1b (col. 9, lines 26-35). The U-shape of the touch screen is given such dimensions that a user may slide his finger or a stylus over the active surface area in at least one direction and thereby, due to the tactile feedback from the U-shape, the user can be informed about the position of the finger or the stylus at the active surface area (see column 4, lines 1-8).

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Two parallel grooves are first formed at the surface region of the apparatus 1141. The grooves are formed in such a way that at least a part of the "legs" of the U-shaped structure may be placed in the grooves (col. 6, lines 58-62).

As for claims 77-79, van Ketwich also teaches that it is also possible to allow the pivot button 1755 to slide along the U-shaped structure by the influence of a user. Such movement is indicated in Fig. 10a by the arrows symbolized by X' and X". In an alternative embodiment the pivot button 1755 (a fader cap) may be provided with small protruding elements (not shown) which physically separate the major part of the surface of the pivot button 1755 faced towards the touch screen 1711 from the surface of the touch screen (see column 10, lines 50-62).

In regard to claims 80-82, van Ketwich also teaches using touch screens of other kind of technologies such as discrete resistive, scanning infrared or digital resistive technologies (col. 5, lines 48-51). Therefore, the same configuration as described above can be used in a resistive touch sensor controller.

Referring to claim 83, van Ketwich teaches in an alternated embodiment, a touch screen, which is formed to have a substantially round or elliptical shape in a top view perspective (the perspective of a user) which protrudes towards or away from a user in a ball-shaped or dent-shaped manner (col. 3, lines 65-68, and col. 4, line 1).

3. Claims 10-11, 18-19, 25-26, 28-29, 42-44, 47-56, 60, 69-71, 88-89, 92-93 are objected to as being dependent upon rejected base claims, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Amendment

4. The amendment filed on October 18, 2002 has been considered. In response to applicant's argument that the reference fails to show certain features of application's invention, it is noted that applicant does not show clearly in the amended claim 1 either the touch screen is of resistive or capacitive or optical type. Moreover, the amended claims only state the touch screen is "generally flat" or "generally planar", this does not means that the touch screen is totally flat, therefore van Ketwich reference still applies.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hau H. Nguyen whose telephone number is: 703-305-4104. The examiner can normally be reached on MON-FRI from 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on 703-308-6829.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

H. Nguyen

12/30/2002



ULKA J. CHAUHAN
PRIMARY EXAMINER